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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/058,765	01/28/2002	Darryl Richard Schick	122185.100A	4138

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EXAMINER

NATNAEL, PAULO S M

ART UNIT PAPER NUMBER

2614

DATE MAILED: 04/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/058,765

Applicant(s)

SCHICK ET AL.

Examiner

Paulos M. Natnael

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01 November 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-3,5-20 and 35-52 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 35-52 is/are allowed.
- 6) ☒ Claim(s) 1-3,5-16 and 18-20 is/are rejected.
- 7) ☒ Claim(s) 17 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. Upon further consideration, the previously indicated allowability of claim 4 has been withdrawn. Examiner regrets the inconvenience this may cause the Applicant. However, this is necessary for a thorough examination.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims **1-3,5-16,18-20** are rejected under 35 U.S.C. 103(a) as being unpatentable over Hossain, U.S. Patent Appl. Publication # 2003/0059199A1 in view of Takeuchi, U.S. Patent # 5,585,864.

Considering claim 1, Hossain discloses the following claimed subject matter, note;

a) an image processing memory portion, the image processing memory portion including an image buffer for the computation of an image from a digital image file, is met by the digital video storage and playback standards 24, fig.2;

b) an integrated circuit in communication with the image processing memory portion, the circuit including integrated processing capability for the computing of a the image corresponding to the digital image file, is met by computer 14, fig.2;

c) a video memory portion in communication with the circuit, the video memory portion being capable of storing a plurality of computed images that are computed by the circuit, is met by Transport Digital Storage Media 38, fig.2;

Except for;

d) a direct memory access controller that is capable of providing efficient data transfer to or from the media or interfaces that provide the digital image files to the apparatus, the image processing memory portion, the integrated circuit, and the video memory portion;

Regarding d), Hossain discloses a computer 14 ("computer" defined broadly to include any device capable of receiving and processing data) (see page2). Computer 14 includes memory and software. Hossain does not specifically disclose the details of such a computer and whether a direct memory access controller (DMA) is utilized within the computer 14. However, the DMA is notoriously well known in the art of data, image, of video transfer to and from different devices within a computer system. In that regard, Takeuchi discloses an apparatus for effecting high speed transfer of video data into a video memory using direct memory access. Therefore, it would have been obvious to the skilled in the art at the time the invention was made to provide the DMA controller of

Takeuchi et al. in order to make faster and efficient the transfer of the video data to and from the source to the computer 14 and the memory devices.

Considering claim 2, the apparatus of claim 1, further comprising a control processing unit that is capable of providing **one or more of**: a) file system processing operations directed to a storage device or interface that provides the digital image file; b) parsing, interpretation, and validation of compressed image file headers; c) interpretation and execution of user commands; and d) coordination of image processing operations of the integrated circuit, is also met by computer 14 that is capable of, inter alia, processing digital picture files 28, digital storage media formatting 36, etc, fig.1;

Considering claim 3, the apparatus of claim 1, further comprising a non-volatile memory portion that contains executable program code defining one or more operational characteristics of the apparatus or of a device into which the apparatus is incorporated, and that also contains one or more images used for informational or background display purposes, is met by computer 14 which utilizes executable program or software to perform the function 26-36 shown in fig.1;

Considering claim 5, the apparatus of claim 1, further comprising one or more SDRAM controllers that provide control memory initialization, read and write cycles, and refresh operations, is inherent in a computer such as computer 14, because the storage devices would be controlled by the memory controller and/or system controller.

Considering claim 6, the apparatus of claim 1, further comprising at least one bus arbitration and multiplexing logic device that allows the image processing memory portion, the video memory portion, the integrated circuit, and file storage media to share one or more common signals, is inherent because such computer systems as Hossain's must utilize logic devices and/or data busses in order to transmit/transfer/share data from one device to another.

Considering claim 7, the apparatus of claim 1, wherein the integrated processing capability includes converting the digital image file into a viewable bitmapped image, is met by the computer 14 and the disclosure that "the computer system of claim 1, wherein said first format is one that supports **graphical** images." (see claim 5, page 3) [note: graphical images are the same as bitmapped images]

Considering claim 8, the apparatus of claim 7, wherein the integrated processing capability further includes resealing the viewable bitmapped image to fit an available viewing area of a television display.

See rejection of claim 7.

Considering claim 9, the apparatus of claim 7, wherein the integrated processing capability further includes filtering the viewable bitmapped image to reduce the severity

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of at least one television display artifact selected from the group consisting of cross-luminance, cross-chrominance, and video flicker,

See rejection of claim 7.

Considering claim 10, the apparatus of claim 7, wherein the integrated processing capability further includes converting the viewable bitmapped image into a television video signal, is met by computer 14, fig.2. [see Television monitor 22, fig.2]

Considering claim 11, the apparatus of claim 1 further comprising an output that is capable of delivering any of the plurality of computed images to a display device without performing further digital computation, is also met by computer 14, fig.2;

Considering claim 12, the apparatus of claim 11, wherein the processor is capable of providing time-multiplexed image data and one or more video synchronization signals to form a composite video signal, is met by computer 14, fig.2;

Considering claim 13, the apparatus of claim 1, wherein the integrated circuit is an application-specific integrated circuit or a field programmable gate array, is also met by computer 14, fig.2, which may comprise ASIC.

Considering claim 14, the apparatus of claim 1, wherein the apparatus is further capable of decoding, storing, and providing informational or background images for delivery to a video output or display device, is met by computer 14, fig.2;

Considering claim 15, the apparatus of claim 1, wherein the circuit is further capable of transferring a computed image from the image processing memory portion to the video memory portion, is met by computer 14, fig.2;

Considering claim 16, the apparatus of claim 15, wherein the circuit is further capable of delivering one or more synchronization pulses to a video output or display device via the video processor when the computed image is being transferred from the image processing memory portion to the video memory portion, is implied because without sync pulses, the image or video may not be displayed properly.

Considering claim 18, the apparatus of claim 1 wherein the circuit is further capable of providing one or more of picture-in-picture video insertion, split-image display, and image transition effects, is met by computer 14, fig.1;

Considering claim 19, the apparatus of claim 1 wherein the circuit is further capable of providing an image navigation function, whereby the circuit increments or decrements an image index counter in response to user commands, is met by the function "create playback sequence" 14, fig.2 (see also fig.3).



Considering claim **20**, the apparatus of claim 1 wherein the circuit is further capable of managing images cached in the video memory portion in a manner consistent with the direction of navigation as expressed by a user of the apparatus.

See rejection of claim 19.

#### ***Allowable Subject Matter***

4. Claims **35-52** are allowable over the prior art.
5. Claim **17** is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
6. The following is a statement of reasons for the indication of allowable subject matter: the prior art fails to disclose *inserting phase compensation pixels* in between video frames so that an identical subcarrier phase is established in consecutive video frames, as in claims **17** and **35**;

#### ***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.


Ogilvie, U.S. Pat. 6,292,224 discloses method for eliminating dot-crawl on NTSC TV monitors by incrementing the phase of the color subcarrier by a fixed increment at a number of intervals in each picture frame.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paulos M. Natnael whose telephone number is (703) 305-0019. The examiner can normally be reached on 9:00am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller can be reached on (703) 305-4795. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PMN  
March 24, 2005



**PAULOS M. NATNAEL**  
**PATENT EXAMINER**